Introduction to the Run II Plan

Steve Holmes
Director's Review of Run II
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Scope of Presentations

- We will present a plan, with "design" and "base" luminosity projections.
- The plan is created and presented utilizing project tools, allowing better organization of the work.
- However, this is not a Construction Project.
 - R&D project with decision points that will force evolution of the Scope of Work
 - > Accelerator operations proceeding in parallel with upgrades
- Planning for Recycler integration is a major uncertainty in the process
 - > Near term focus on improvements that will allow us to determine what it will take to bring this into operations
 - > Major decision point this fall is contained within the plan
 - > Expect to modify the plan and re-release in December

Scope of Presentations (2)

- The plan itself, and in particular the luminosity projections, assume successful integration of the Recycler.
- FY04-05 luminosity performance is largely independent of the decision.
- Possible evolutions of the plan in the event the Recycler is not integrated are under study.

Projected luminosity through FY09:

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Design = 8.6 \text{ fb}^{-1}
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Base =
$$4.4 \text{ fb}^{-1}$$

What do we mean by Design and Base?

- Design projection: "defined as using reasonable performance parameters and requiring reasonable improvements over past performance, but as not including scheduling contingency"
 - > performance margin is incorporated into designs but not fully accounted for in the design projection.
- Base projection: "using conservative parameters and including schedule contingency"

Bottom line:

The "base projection" in the current plan corresponds approximately in confidence level to the "base" as used in communications of last fall/winter.

The "design projection" is a higher confidence level projection than the "stretch" projections of last fall/winter.

Why have projections changed since last fall?

Last October we projected (through FY08):

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Base = 6.5 fb<sup>-1</sup>
Stretch = 11.0 fb<sup>-1</sup>
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What's changed?

- Bottoms-up vs Tops-down
- Recycler struggles since last October
- Detector Shutdown in '06
- No recycling
- ~\$5M FY04 shortfall
- Hours/week based on current experience
- Shutdown recovery periods
- Fail-safe Recycler integration
- Schedule contingency (base)

Current projection is lower; it's also more realistic

What we would like out of this Review

We believe the following points are true of the plan. We hope the committee will agree and reflect this in your conclusions.

- The plan presented is a sound, well-motivated, approach to maximizing luminosity delivered over the period FY2004-2009, consistent with available resources.
- High probability that the base projection will be met or exceeded.
- Reasonable probability of the design projection being achieved assuming successful Recycler integration.